



# Ericsson News

1931

English edition

Managing Editor:

Woldemar Brummer

No. 1-3.

N. B. The No. 11-12, 1930, of "Ericsson News" which contains only a list of pamphlets published by the Editor during the years 1926-1931 is distributed together with The L. M. Ericsson Review No. 1-3, 1931.

## Hugo Lindquist, In Memoriam.

The Director of Empresa de Teléfonos Ericsson, S. A., Hugo Lindquist, died in Mexico City on January 30th after only four days' illness.

Born in 1894, he had not yet completed his 37th year when death removed him from this life and from the activity to which he had devoted his youthful strength, his unceasing interest, and his indomitable energies for only 3 short years.

Lindquist's career at home before entering the service of the Mexican Ericsson Company had already placed him in the front rank of his generation in another branch of engineering.

Having passed his examination in the Road and Waterways Construction Department of the University of Technology, Stockholm, in 1920, his first appointment was in the "Vattenbyggnadsbyrå" (Waterway Constructions Ltd.), where his principal work was to prepare plans for water- and sewage-works. He also served for some time in the hydro-power department of the bureau, however, and assisted in preparing plans for several important Swedish power stations.

During this period he also gained a reputation as an author in his branch, and published some notable articles in "Teknisk Tidskrift" (Technical Review).

Conditions at home, however, were too confined for the young and ambitious engineer, who sought wider fields to conquer. The reason why he then went to Mexico was that his brother was established there. He began as his brother's assistant, but his eminent capacity did not long remain unnoticed. The rapid development of the



R 1852

Ericsson telephone business in Mexico demanded an enlarged, and especially a capable, staff. Mr. E. Östlund, then director of the Company, engaged him from January 1st 1927 as his secretary, and when Östlund left in June 1929, Lindquist was appointed his successor. The period he held this post was too short for a proper appreciation of what he has done for the firm, but those who had the opportunity of coming into contact with him are fully convinced that the Ericsson Concern had acquired in him a man of unusual capacity, who would have done much for the further success and progress of the Company, had he been spared. During his short life his attractive personality had gained for him the esteem and liking of superiors and subordinates, as well as of friends near and far. The telegram of condolence received by the Mexican Ericsson office in Stockholm from the Swedish Minister in Mexico is brief but expressive evidence of what we have said. This telegram runs: "Receive

sincere sympathy your great loss. I and colony deeply mourn splendid fellow-countryman".

On 1 February, Hugo Lindquist was buried in the Dolores Cemetery in Mexico City. Mr. Anderberg, the Swedish Minister, Mr. Garrofiás, the senior official of the Mexican Ericsson Company, and Mr. Lindeberg, second in command to the deceased, spoke at the grave side. A very large number of wreaths had been sent, testifying to the esteem and affection which the deceased had won from wide circles during his far too short life.

— **News from the Telefonaktiebolaget L. M. Ericsson.** — At an extra general meeting of Telefonaktiebolaget L. M. Ericsson, held in Stockholm on Dec. 6th 1930, the Managing Director, Captain J. Grönberg, was elected a member of the Board in succession to Director K. F. Wincrantz, resigned on account of ill-health.

— The list of *Exchanges on the L. M. Ericsson Automatic Telephone System at work or under construction on Oct. 1st 1930*, published at the end of last year, shows that 56 exchanges were working on that date, with an aggregate of 206,530 connected lines, and that 88 exchanges were under construction for a total of 280,520 lines. The sum total of telephone exchanges at work or under construction was thus 144, for in all 487,050 lines. The ultimate capacity of all these exchanges exceeds 2 million lines. These plants are spread over 17 different countries, 11 of which are in Europe and 6 in other parts of the world. The system was perfected and available for public service in 1923. Only 3 exchanges were put to work in that year, one in Rotterdam and two in Norway (Hamar and Kristiansund) with 5000, 1200, and 1500 connected lines respectively, with an ultimate capacity of 60,000 in Rotterdam and 5000 in each of the Norwegian towns. The above figures show that the progress of the system in this comparatively short time, barely 8 years, has been extraordinarily rapid. The following active exchanges have been enlarged between October 1, 1930 and January 31, 1931:

The Argentine, Godoy Cruz,	by 200 lines
"    "    , Guleguachu,	"    500    "
"    "    , Mendoza,	"    1000   "
Esthonia, Tallinn (Reval),	"    500    "
Italy, Naples, Borsa,	"    2500   "
	Total 4700 lines

The new "Drottningtorget" exchange in Gothenburg, still under construction for 6500 lines on Oct. 1st, 1930, was opened for traffic on Dec. 1st the same year, with 5000 lines.

The Royal Board of Telegraphs has ordered another two automatic exchanges, viz.:

Stockholm, Östermalm,	for 25,000 lines
Gothenburg, Masthugget,	"    12,000   "

Arendal Telefonselskab, Arendal, Norway, has ordered from Elektrisk Bureau, Oslo, a telephone exchange on the L. M. Ericsson system for 1500 lines with an ultimate capacity of 4000 lines. This order includes a combined trunk- and night-service switchboard with 2 service positions for in all 100 long distance lines, and with 15 connected trunk lines. The long distance service is manual at night only, and automatic in day-time.

At the time of writing, the figures of October 1st, 1930, read:

147 exchanges, 216,230 connected lines, 309,320 lines under construction, totalling 525,550 lines.

— At the end of last year, a list was published and distributed of all the manufacturing, working, selling, and installation businesses and agencies cooperating in the Concern. The following subsequent alterations should now be noted:

*Manufacturing Company, Spain:*

Formerly: Compañía Española de Teléfonos Ericsson, S. A., Principe 12, Madrid.

Now: Compañía Española Ericsson, S. A., Pi y Margall 12, Madrid.

*Agencies, China:*

The Ekman Foreign Agencies Ltd., Shanghai, Postal address: formerly: 6, Kiangse Road, now: 115, Kiangse Road.

— The first Ericsson *Electrotechnical Course of Instruction* this year was held on March 13—15 at Falun in the Grand Hotel Reception Rooms there. Historically, this course was of especial interest, this being the fifth consecutive year of the instructional activity begun in the same place, Falun, on November 13th, 1925, by Sieverts Kabelverk. When in 1928 the Cableworks were incorporated in the Ericsson Concern, the instructional activity was continued in the name of the latter organization. Individuals who took part in the first Falun course will no doubt have noticed the advance and increased scope of this activity, compared with the first modest steps, as well as the progress in the branch of electrotechnics represented by the Ericsson Concern. We had been fortunate in obtaining for this course the services of the following gentlemen, non-members of the Concern and wellknown experts in their respective branches:

Mr. *Torsten Holmgren*, Chief Engineer of the Electric Testing Institute, Stockholm, one of the original founders and organizers of these courses. The subject of Mr. Holmgren's lecture, the first on the programme in Falun, was: "Practical experiences from the Fire Insurance Offices' Electrical Committee".

Mr. *K. G. Sjöberg*, Director of the Power Department of the Stora Kopparbergs Bergslags A.-B., Falun, spoke "On Thunder, excess voltages, and the effect of electricity on the human body".

*Captain R. Götherström*, Fire Prevention Department of the Federation of Swedish Industries, gave a lecture on "Electricity and the risks of fire", and

Mr. *Ove Mogensen*, proprietor of Dalarnas Elektriska Konsultationsbyrå, spoke on "Efforts at Rationalization in minor power concerns in Dalarna".

The staff of the Concern contributed nine lectures on the following subjects: Low Tension Installations in offices and factories, Automatic fire-alarms, Laying and Fittings of Lead Covered Cables, High Tension Condensers for the Improvement of Power-factor, Electric Meters, Modern

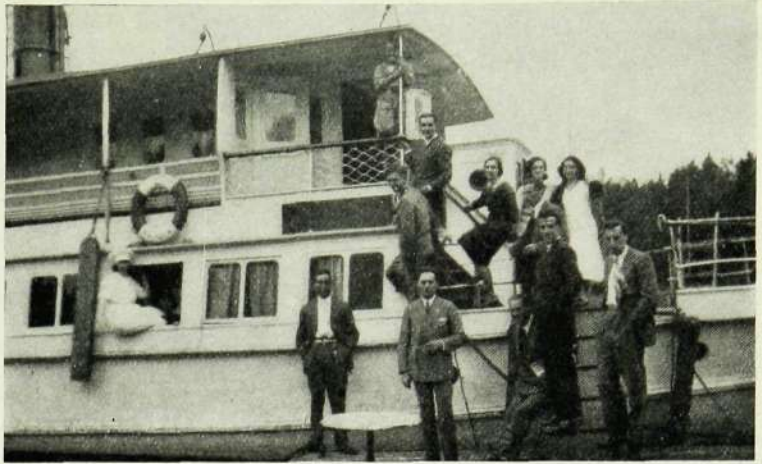
high tension cables, Modern electrical installations for industrial and agricultural establishments, Bakelite and its uses, D. C. and A. C. Lines, and Wireless Mains-connected Receiving Sets.

The lectures during the Falun course covered a wide field of electro-technics. This time, as before, the programme was planned to benefit every member of the profession, be he the manager of electrical or industrial works, or the youngest fitter.

As in earlier courses, the lectures were illustrated by lantern slides or films. Pamphlets describing various activities of the Concern were distributed among the visitors. An exhibition of the manufactures of the Concern was, as usual, arranged during the course, and members of the Ericsson staff supplied information of and demonstrated the exhibits between, before, and after the lectures.

The course was formally opened at 10.45 a. m. by Mr. Gösta Klemming, Manager of The L. M. Ericsson Telephone Works, who in welcoming the audience gave a brief survey of the progress of the Ericsson Concern, its various activities, and its growth to date. He then called upon Mr. Torsten Holmgren for the first lecture of the course mentioned above. By the courtesy of Mr. Ove Mogensen, the Chief of the Falun Broadcasting Station, the speeches of Messrs. Klemming and Holmgren were broadcasted, their inclusion in the National Programme having been announced the day before. The Concern had the pleasure of welcoming about 300 visitors during this course.

— On August 6th, 1930, a party of 38



R 1847 A snapshot of the Italian visitors, on the way to Solboda.

engineers, officials and young ladies engaged in Italian companies cooperating with the Ericsson Concern — Società Ericsson Italiana, Genoa, Ericsson-Fatme, Rome, and Società Esercizi, Telefonici, Naples, arrived in Stockholm. The object of the journey was to give the Italian staff of the Concern an opportunity to see Sweden and learn something of the parent company at Stockholm. Mr. Knut Kihlgren, technical manager of the Ericsson Genoa company, had arrived a few days before to organize the visit. Miss Skafte, a Swedish lady engaged in the Genoa company, assisted him and conducted the party, accompanying our Italian colleagues during the whole trip. Professor Anchieri, the well-known Italian geographer, and two distinguished Italian journalists — Ardemagni of the paper "Popolo d'Italia", and Dr. Venturino of the



R 1845 A snapshot of the Italian visitors, on the way to Solboda.



R 1846 A snapshot of the Italian visitors, on the way to Solboda.

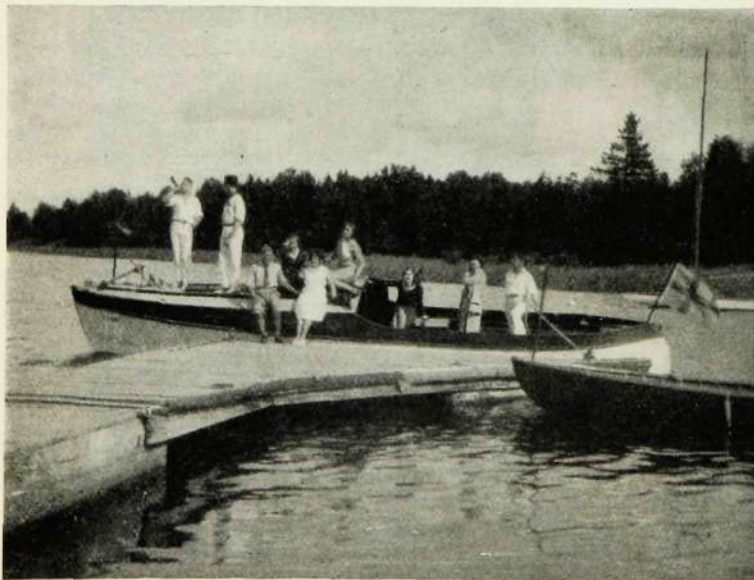


R 1850

Summer life at Solboda.

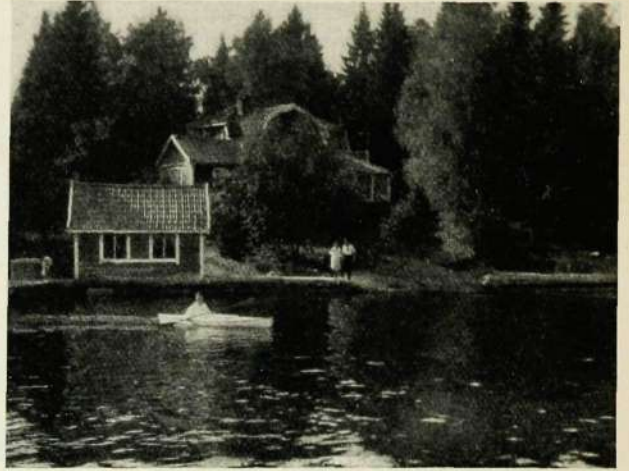
magazine "Opera e Giorni" — also joined the trip.

Besides Stockholm, Trollhättan, Gothenburg, and other places were visited, and the return journey was made via Copenhagen. Ten days were allotted to Stockholm, where a full programme awaited the travellers. The telephone



R 1851

Summer life at Solboda.



R 1848

Solboda from the water.

factory and the Head Office of the Concern in Södra Kungstornet were first visited, and after luncheon at the "Pagode", everybody had an opportunity of viewing Stockholm from the roof terrace, more than 200 feet above street level. Several trips through the town and its surroundings were made, and excursions among the islands were included in the programme; the sights of Stockholm, the Royal University of Technology, the Stockholm Exhibition, the largest General Stores in Scandinavia Nordiska Kompaniet, Svensk Hemslöjd (Showrooms of Swedish Handicrafts), etc., were inspected. Ample time was allowed for any one who was interested in studying thoroughly the manufacturing processes at the telephone factory and at Sieverts Kabelverk. In the surroundings, Saltsjöbaden was visited by boat through the beautiful Skurusund.

The visit obviously impressed the Italians very much, and they learnt that in warmth, sun, and natural beauty, especially as regards the latter, our barren country can, at least to some small extent, compete with "La bella Italia" — otherwise "hors concours". One day the visitors had luncheon in the new large telephone factory dining-hall, holding c. 200 people at a time, where luncheon is daily served in three sittings to the 600 or so employees. On Thursday, August 14th, the Società Ericsson Italiana gave a dinner at Hasselbacken for the Italian visitors, to which the management and some officials of the parent company, some journalists, and others, had also been invited. The Italian Legation at Stockholm was represented by the First Secretary, the Duke of Cafarelli, and the Duchess of Cafarelli.

Among the excursions to the is-

lands, the visit of our Italian colleagues to "Solboda", the beautiful summer resort of the L. M. E. Society on the isle of Resarö, deserves special mention. A view of this from the sea is reproduced above.

The members of this Society — consisting of officials of the Swedish branches of the Ericsson Concern — spend their free time here in the summer, bathing, rowing, sailing, playing tennis, or walking in the forest surrounding the villa, and resting from the labours of the week. All requisites for cooking and serving meals and for sleeping accommodation are available here. Convenient communications with the capital save any unnecessary loss of time going there and back. The villa, simply but conveniently fitted, enchanted our southern colleagues, who could not find words to express their appreciation of this unique and agreeable week-end resort of the members of the L. M. E. Society. We reproduce below and on pages 3 and 4 some photos taken on this and other occasions at Solboda last summer.



R 1849

Summer life at Solboda.

— **International Measurements at Skillingaryd.** In October 1930 a comprehensive series of induction measurements were undertaken on the Skillingaryd shooting range. The object of the tests was to gain increased knowledge of the factors influencing the mutual induction of parallel conductors earthed at the end points.

Naturally, it is of importance to be able to compute approximately the voltages induced in telephone and telegraph lines when for instance earthing faults occur in power lines running parallel to them. Many theoretical investigations have been made recently which indicate that the mutual induction coefficient is dependent on both periodicity and the conductivity of the earth.

In order to verify these theoretical results, systematic experiments were arranged in Germany during 1925 and 1928 in three different places, when lines specially put up for these experiments were employed. The last series of experiments (at Münsingen in Württemberg in the autumn of 1928) formed part of the working programme of the "Commission Mixte Internationale".

This committee, the CMI for short, was formed

in 1926 with the object of elucidating by experiments various disturbance problems in telephony and telegraphy. The international committees for long distance telephony (CCI) and telegraphy (CCIT) cooperate in this work, as well as a number of representative high tension associations (e. g. "Union Internationale des Chemins de fer", "Union Internationale des Producteurs et des Distributeurs d'énergie électrique", and others), and also some private electrical industrial firms.

Measurements of induction from power lines have proved that, with the exception of the southernmost parts of Skåne, the voltages induced in Sweden have been distinctly higher than those computed on a basis of the values obtained from measurements in Central Europe or in England. An attempt has been made to explain this fact by assuming that the average conductivity of the earth is particularly low in Sweden as, theoretically, induction increases with reduced conductivity. It was therefore considered of great interest to confirm this observation by systematic measurements of the same nature as those made in Germany. For this purpose the tests were arranged at Skillingaryd with the cooperation of the CMI. The artillery range there was chosen as the site for the measurements, partly because it was comparatively easy to put up test lines there, and partly because no disturbing influence was risked from any extensive power lines. Further, the neighbourhood may be regarded as fairly representative of the greater part of the country, which is not unimportant, as the conductivity of the earth has proved an important factor.

Five parallel lines were put up on poles along



R 1960

From left to right: Messrs Ollier, Secret., C. M. I.; Whitehead, Institution of Electrical Engineers; Krapka, Czechoslovakian Telephone Administration; Professor Pleijel of the University of Technology at Stockholm; Leboulleux, Compagnie des Chemins de fer de Paris à Orléans; Helmer, S. J.; Meyer, Felten & Guillaume, Carlswerk; Swedenborg, R. Swed. Board of Telegraphs; Billing, S. J.; Zastrow, Siemens & Halske; Vos, Svenska Radioaktiebolaget; Klewe, German Tel. Adm.; Rylander, S. J.; Juselius, Finnish Teleph. Administration; Holmgren, Royal Swed. B. of T.; Pidgeon, Brittish G. P. O.; Falk, R. Swed. B. of T.; Carter, British G. P. A.; Urmston, Callender's Cable & Construction Co., Ltd.; Saltoft, Kjöbenhavns Telefon A./S.; Holmblad, Danish Teleph. Administration; Stenby, Kjöbenhavns Telefon A./S.

the range, at varying distances apart. The line used for the inducing current was 7 kilometres long, the remainder 5 kilometres each. The distances between the lines were respectively 1 metre, 100 metres, 300, 1000, and 3000 metres (the first mentioned line being placed on the same poles as the inducing line). The frequency used in the experiment varied between  $16\frac{2}{3}$  and 2000 cycles. The measuring apparatus was in every respect identical with that used at Münsingen. The instruments were arranged in two special cars, prepared by the German Telephone Administration in conjunction with Siemens & Halske, to facilitate disturbance measurements in different places.

The results of the experiments confirmed that the mutual induction in conductors using earth returns was particularly high in Sweden. As an example, we might mention that at a distance of 3 kilometres and at  $16\frac{2}{3}$  cycles, about 20 times higher values were obtained than those given as standard by the CCI on the basis of the German measurement series. The difference is thus amazingly large. Obviously, uniform values

cannot be used in different countries for computing the induction. The electrical nature of the ground must be taken into consideration, and this must be experimentally ascertained in each case. Apparently, Sweden is very unfavourably situated with regard to induction from power lines and electrified railways. This circumstance, which is unavoidable, is of course unfavourable from an economic point of view as, to obtain the same degree of freedom from disturbances, the steps taken to limit these must be more comprehensive than elsewhere.

About 20 members of the CMI were present at the conclusion of the Skillingaryd tests, to study the measuring methods employed, verify the results, and discuss the observations made. The Ericsson Concern was represented by Professor H. Pleijel and Dr. M. Vos.

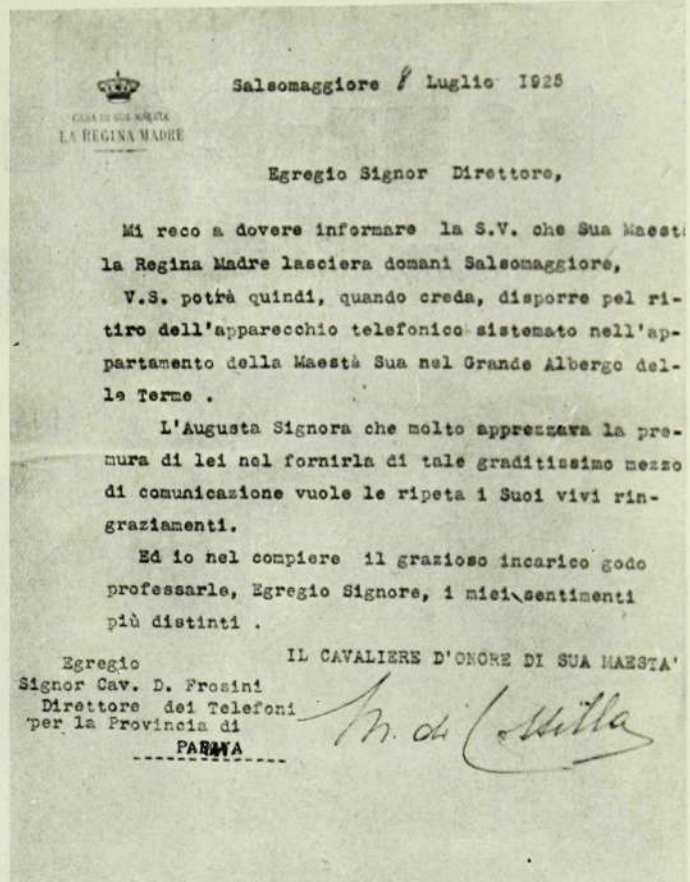
We reproduce a group photograph of the CMI-members in Jönköping.

A review of the historical development of the theories, and an account of the measuring arrangements and results, will be published in "The L. M. Ericsson Review".



R 1511

The late Queen-Dowager Margherita of Italy.



R 1510



R 1509

— The late Queen-Dowager Margherita of Italy, the «Regina Madre», mother of the present King, stayed for some time in Salsomaggiore in 1924 and 1925. On these occasions, every effort was made by the "Società Telefonica Alta Italia", at that time holding the telephone concession in the Parma province, to put an especially good telephone set at the disposal of Her Majesty the Queen Dowager, as conversations chiefly took place with the Court in Rome. For this purpose the company selected the Ericsson instrument illustrated herewith. In memory of the Queen Dowager's stay in Salsomaggiore, an engraved plate was later attached to this set, the text of which, in translation, was as follows:

Instrument used by

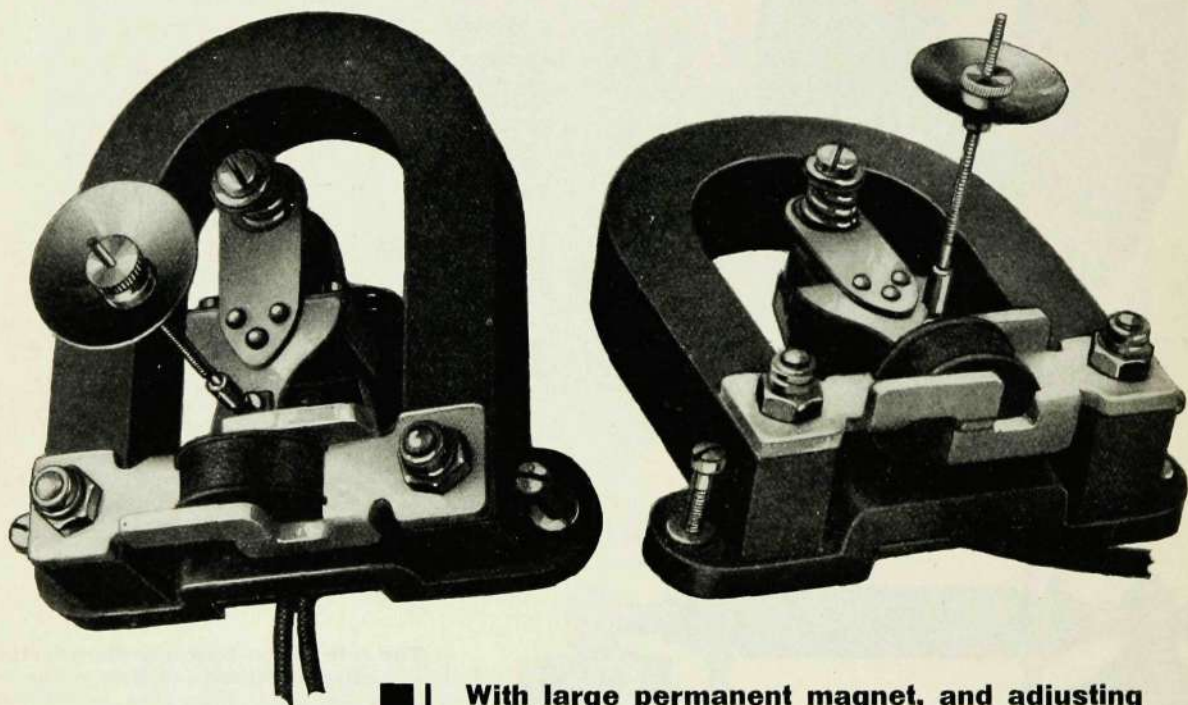
**H. M. the Queen Dowager**

while she honoured Salsomaggiore by her presence

1924                      1925.

By courtesy of the then Local Director of Telephones, Cav. D. Frosini, the photographs shown, valuable from a historical point of view, have been put at the Editor's disposal through the Società Ericsson Italiana. That the set proved perfectly satisfactory to the Queen Dowager is shown by a letter to the Director of Telephones, written by her Chamberlain in Waiting on her departure on July 8th 1925, which letter is also reproduced in facsimile. Beyond saying that the set may be removed on Her Majesty's departure, the letter expresses her acknowledgement of the excellent means of communication — "graditissimo mezzo di comunicazione" — put at her disposal.

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**Great sensitivity.**

**Most up to date principles of design.**

**First class workmanship.**

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